TITLE: PROGRAMMING ARCHITECTURE FOR A PROGRAMMABLE ANALOG SYSTEM

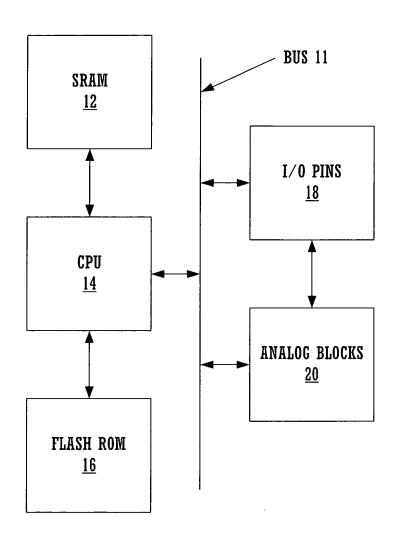
INVENTORS: Monte Mar and Warren Snyder



USSN: 09/929,891 ATTORNEY DOCKET #: CYPR-CD00226

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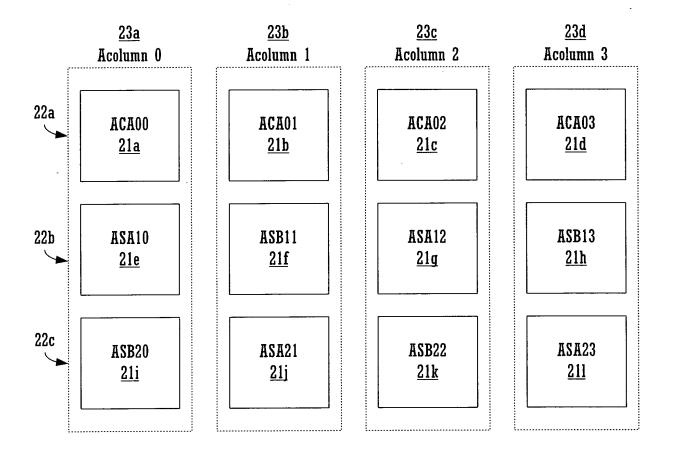
<u>10</u>



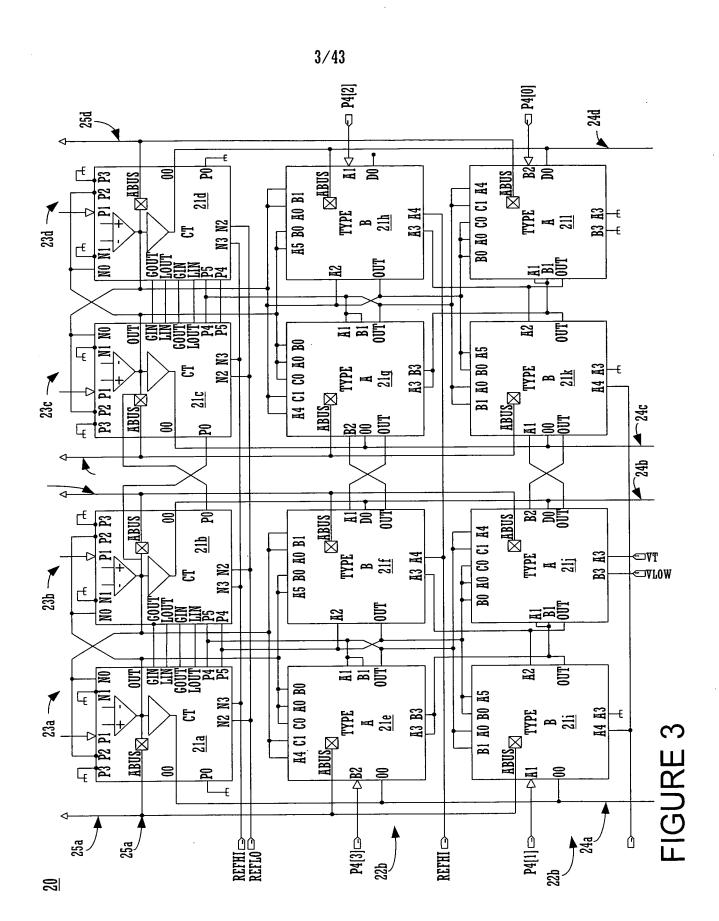
## FIGURE 1

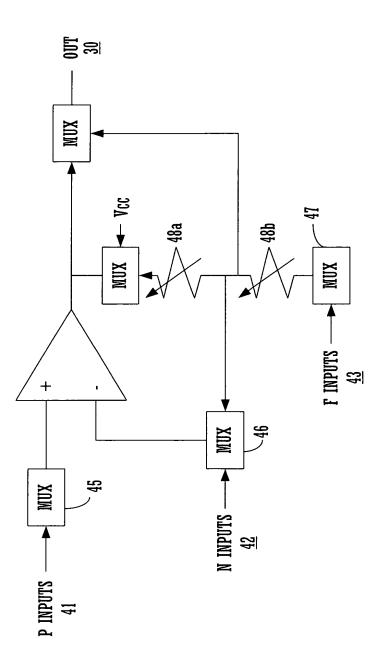
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<u>20</u>



# FIGURE 2





**FIGURE 4A** 



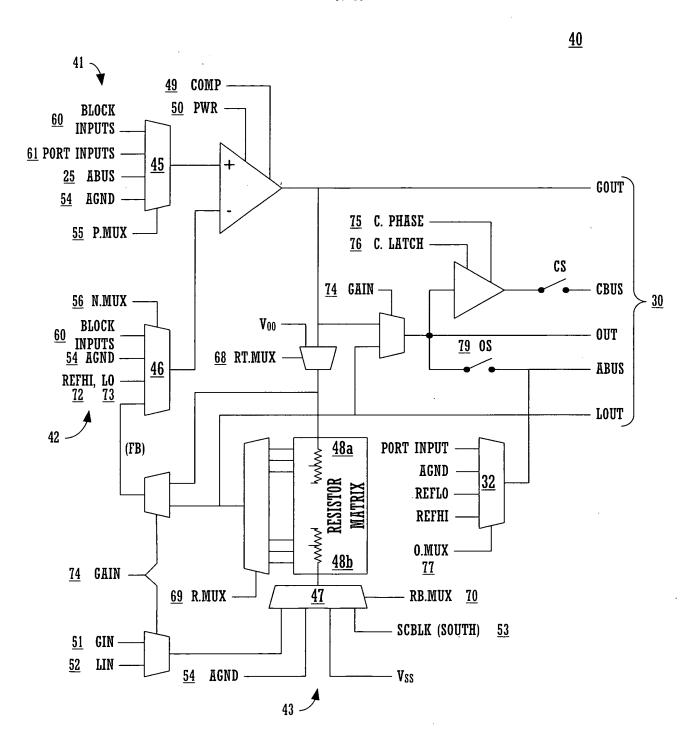
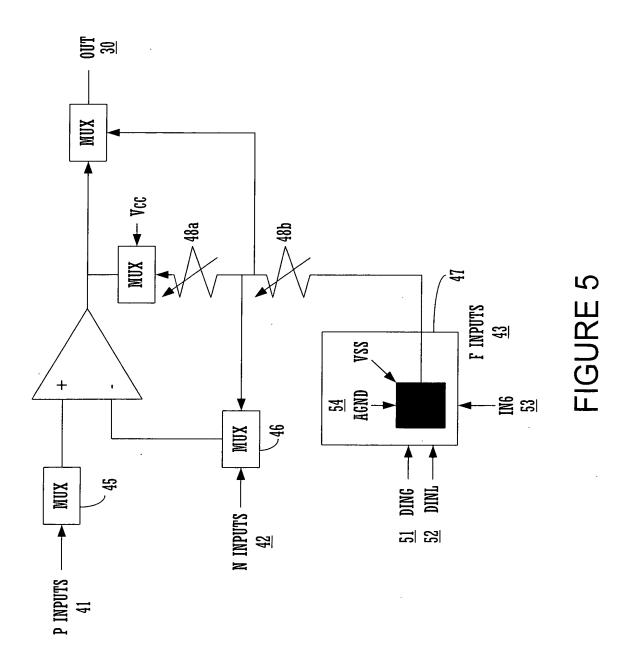
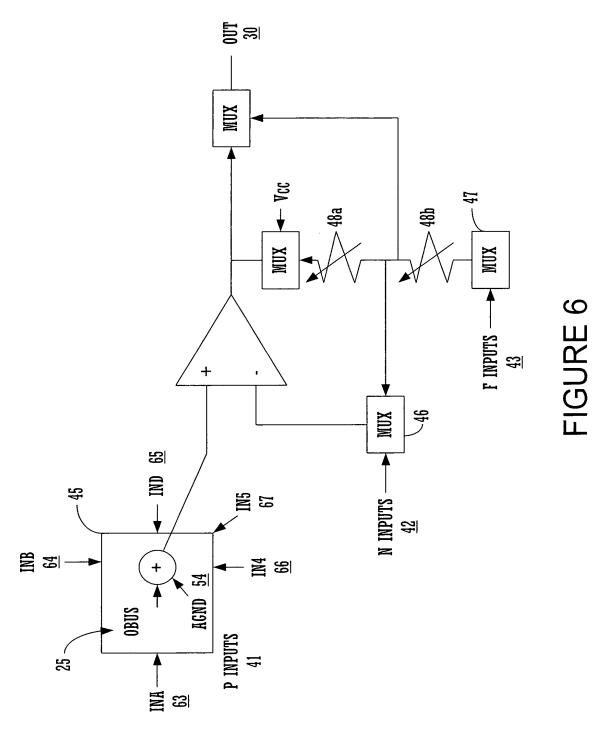
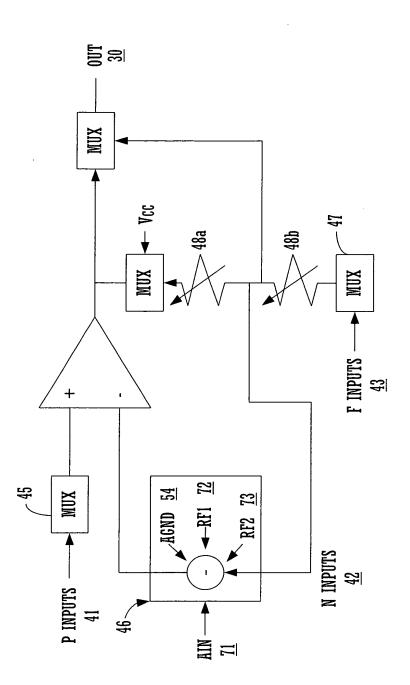


FIGURE 4B

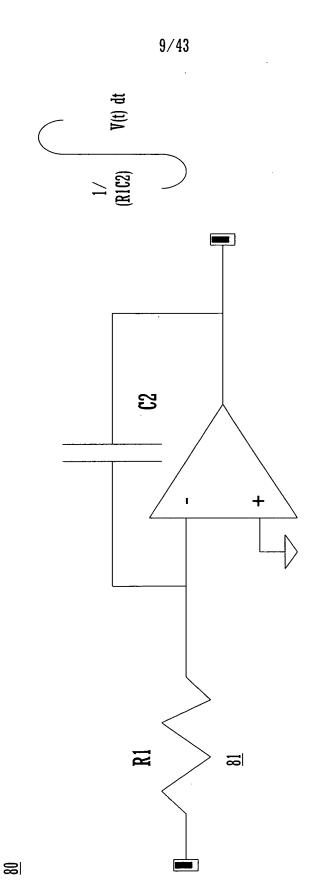


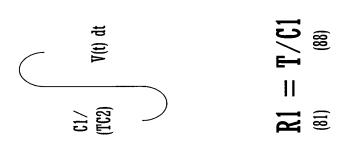












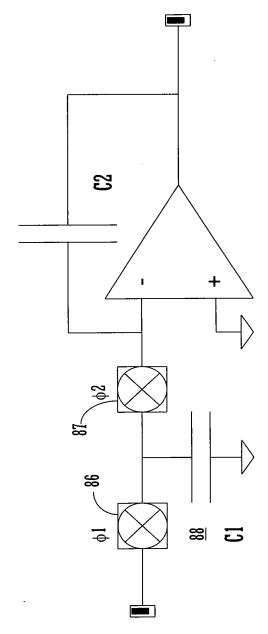


FIGURE 8B

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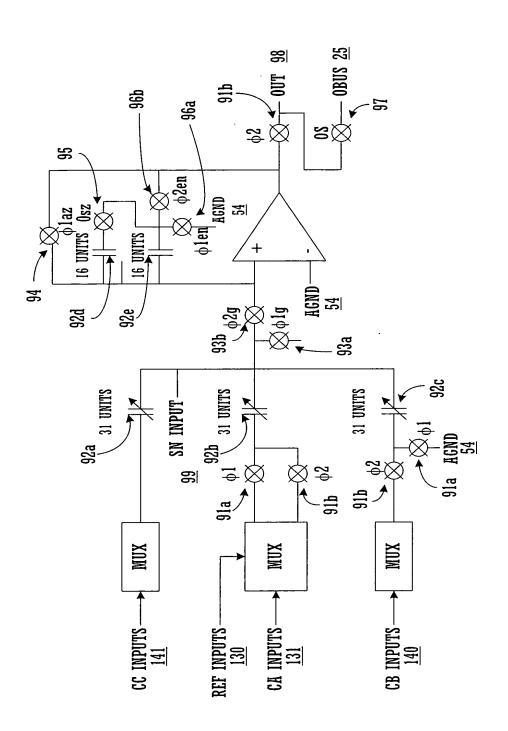
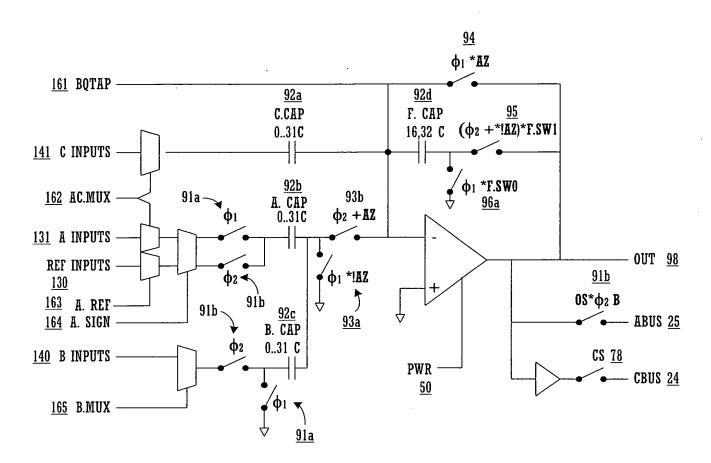


FIGURE 9A

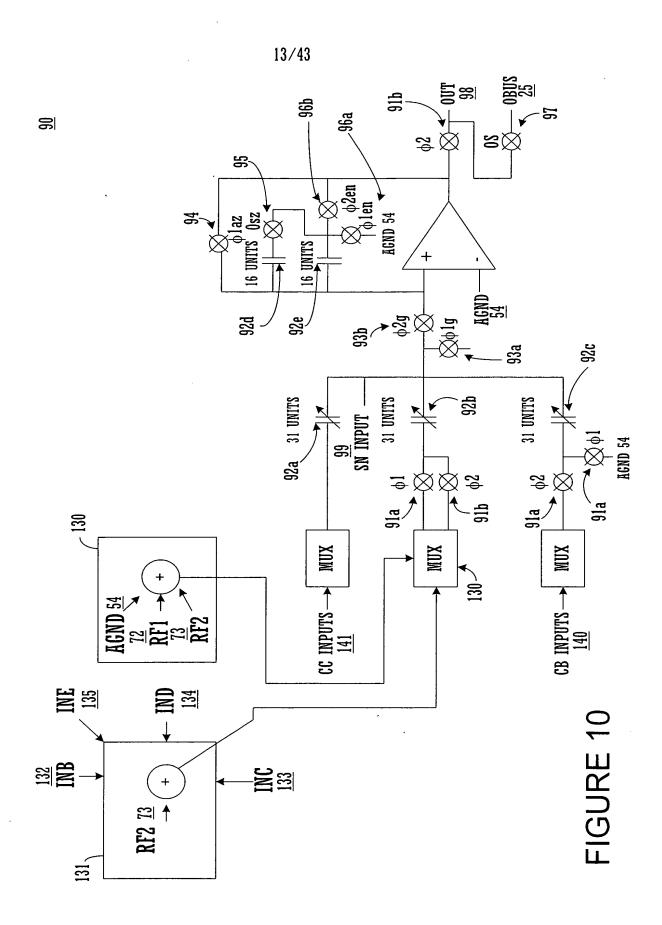
INVENTORS: Monte Mar and Warren Snyder
USSN: 09/929,891 ATTORNEY DOCKET #: CYPR-CD00226

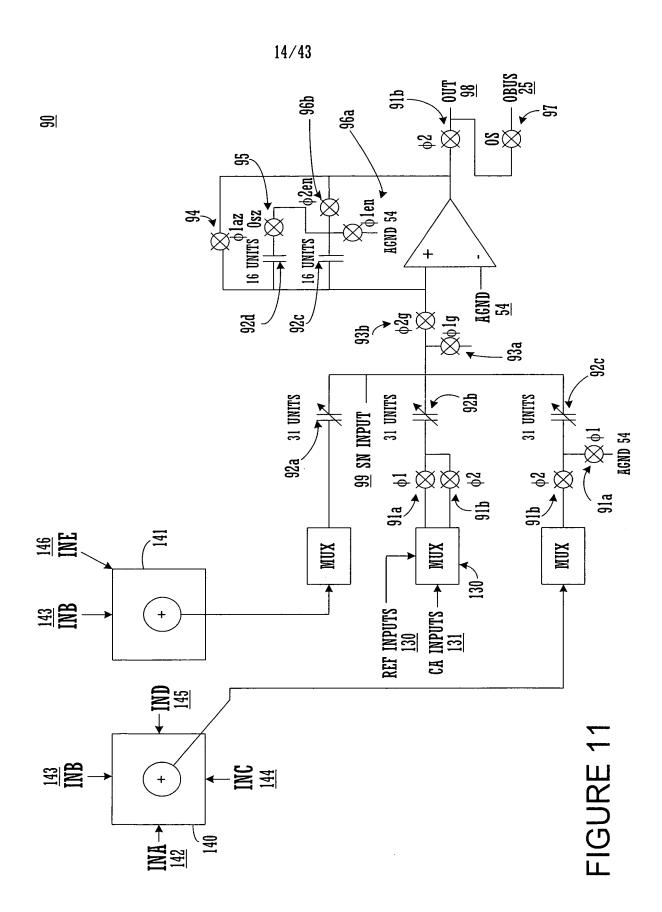
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90a



### FIGURE 9B





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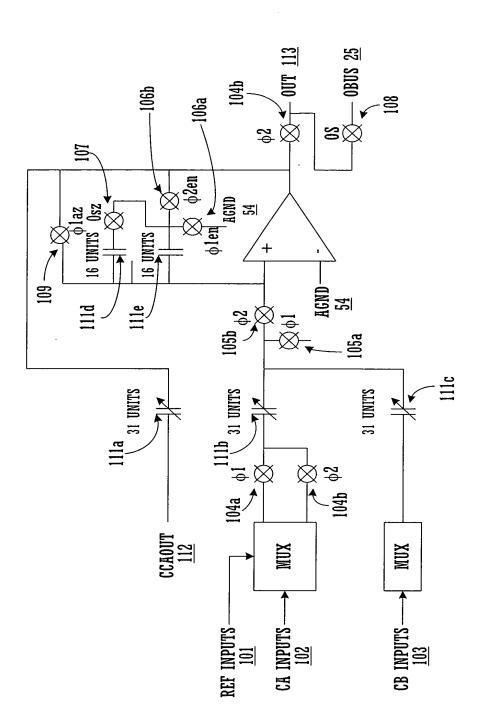
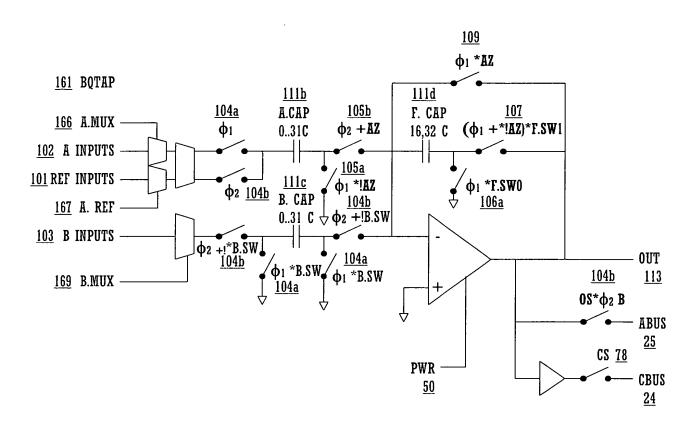
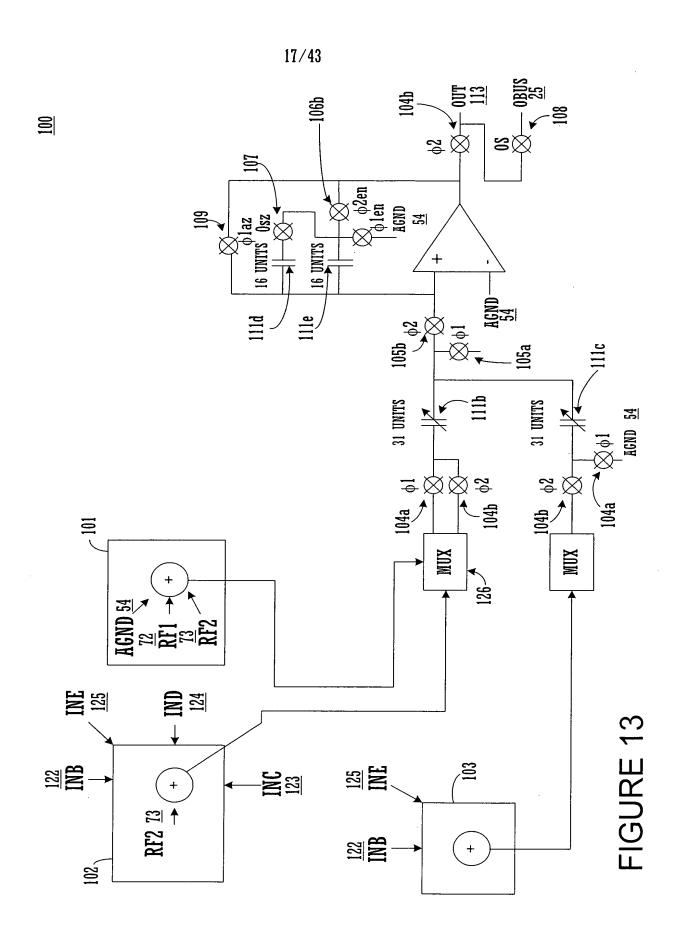


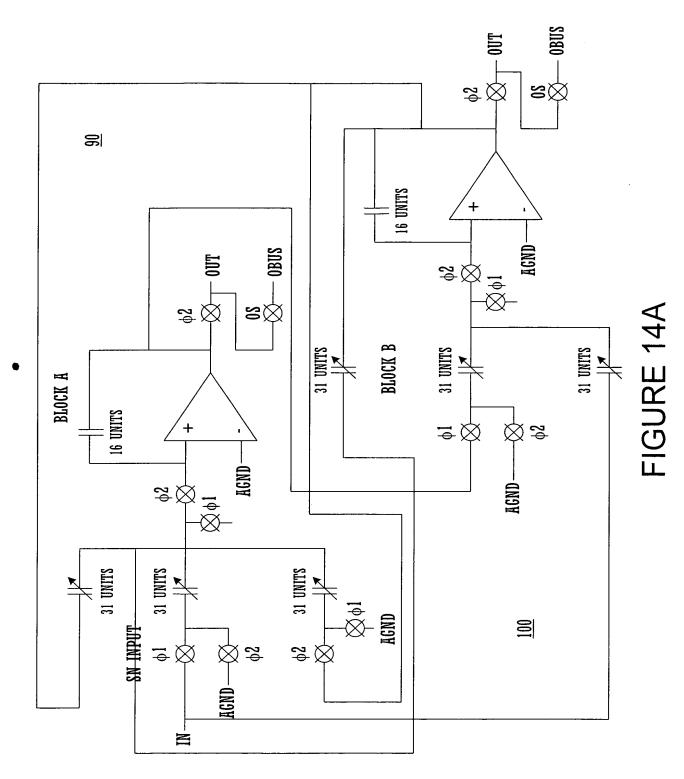
FIGURE 12A

100a



### FIGURE 12B





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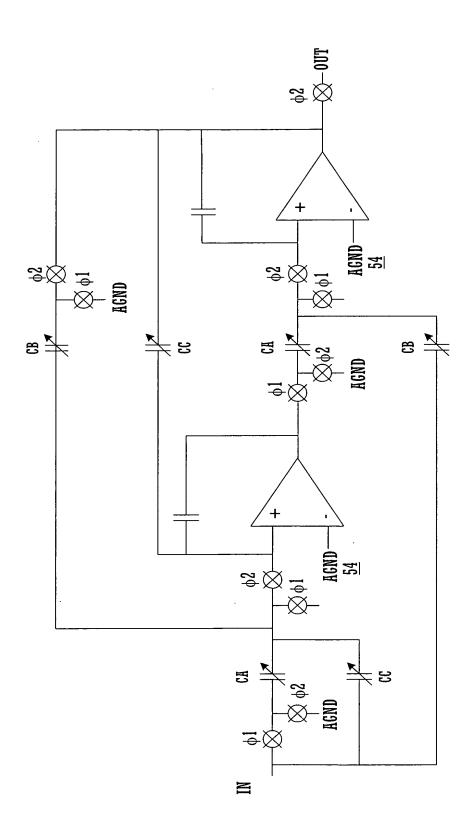


FIGURE 14B

### <u>150a</u>

REG NAME	ADDR	REG NAME	ADDR	REG NAME	ADDR	REG NAME	<u>ADDR</u>
PRTODR	000	RESERVED	040	ASA10CR0	080	RESERVED	0C0
PRT01E	001	RESERVED	041	ASA10CR1	081	RESERVED	0C1
PRTOGS	002	RESERVED	042	ASA10CR2	082	RESERVED	0C2
RESERVED	003	RESERVED	043	ASA10CR3	083	RESERVED	0C3
PRTIDR	004	RESERVED	044	ASB11CR0	084	RESERVED	0C4
PRT11E	005	RESERVED	045	ASB11CR1	085	RESERVED	0C5
PRT1GS	006	RESERVED	046	ASB11CR2	086	RESERVED	0C6
RESERVED	007	RESERVED	047	ASB11CR3	087	RESERVED	0C7
PRT2DR	008	RESERVED	048	ASA12CR0	088	RESERVED	0C8
PRT21E	009	RESERVED	049	ASA12CR1	089	RESERVED	009
PRT2GS	00A	RESERVED	04A	ASA12CR2	08A	RESERVED	OCA
RESERVED	00B	RESERVED	04B	ASA12CR3	08B	RESERVED	0CB
PRT3DR	00C	RESERVED	04C	ASB13CR0	08C	RESERVED	0CC
PRT31E	00D	RESERVED	04D	ASB13CR1	08D	RESERVED	0CD
PRT3GS	00E	RESERVED	04E	ASB13CR2	08E	RESERVED	OCE
RESERVED	00F	RESERVED	04F	ASB13CR3	08F	RESERVED	0CF
PRT4DR	010	RESERVED	050	ASB20CR0	090	RESERVED	0D0
PRT41E	011	RESERVED	051	ASB20CR1	091	RESERVED	0D1
PRT4GS	012	RESERVED	052	ASB20CR2	092	RESERVED	0D2
RESERVED	013	RESERVED	053	ASB20CR3	093	RESERVED	0D3
PRT5DR	014	RESERVED	054	ASA21CR0	094	RESERVED	0D4
PRT51E	015	RESERVED	055	ASA21CR1	095	RESERVED	0D5
PRT5GS	016	RESERVED	056	ASA21CR2	096	RESERVED	0D6
RESERVED	017	RESERVED	057	ASA21CR3	097	RESERVED	0D7
RESERVED	018	RESERVED	058	ASB22CR0	098	RESERVED	0D8
RESERVED	019	RESERVED	059	ASB22CR1	099	RESERVED	0D9
RESERVED	01A	RESERVED	05A	ASB22CR2	09A	RESERVED	0DA
RESERVED	01B	RESERVED	05B	ASB22CR3	09B	RESERVED	0DB
RESERVED	01C	RESERVED	05C	ASA23CRO	09C	RESERVED	ODC
RESERVED	01D	RESERVED	05D	ASA23CR1	09D	RESERVED	ODD
RESERVED	OIE	RESERVED	05E	ASA23CR2	09E	RESERVED	ODE
RESERVED	01F	RESERVED	05F	ASA23CR3	09F	RESERVED	ODF

## FIGURE 15A

### <u>150a</u>

REG NAME	ADDR	REG NAME	ADDR	REG NAME	ADDR	REG NAME	ADDR
DBA00DR0	020	AMX IN	060	RESERVED	0A0	INT MSKO	0E0
DBA00DR1	021	RESERVED	061	RESERVED	0A1	INT MSK1	0E1
DBA00DR2	022	RESERVED	062	RESERVED	OA2	INT VC	0E2
DBA00CR0	023	ARF CR	063	RESERVED	0A3	RES WOT	0E3
DBA01DR0	024	CMP CR	064	RESERVED	0A4	DEC DH or D	0E4
DBA01DR1	025	ASY CR	065	RESERVED	0A5	DEC DL	0E5
DBA01DR2	026	RESERVED	066	RESERVED	0A6	DEC CR	0E6
DBA01CR0	027	RESERVED	067	RESERVED	0A7	RESERVED	0E7
DCA02DR0	028	RESERVED	068	RESERVED	0A8	MUL X	0E8
DCA02DR1	029	RESERVED	069	RESERVED	0A9	MUL Y	0E9
DCA02DR2	02A	RESERVED	06A	RESERVED	OAA	MUL DH	0EA
DCA02CR0	02B	RESERVED	06B	RESERVED	OAB	MUL DL	0EB
DCA03DR0	02 <b>C</b>	RESERVED	06C	RESERVED	OAC	ACC DRO or	OEC
DCA03DR1	02D	RESERVED	06D	RESERVED	OAD	ACC DR1 or	0ED
DCA03DR2	02E	RESERVED	06E	RESERVED	OAE	ACC DR2 or	OEE
DCA03CR0	02F	RESERVED	06F	RESERVED	OAF	ACC DR3 or	0EF
DBA04DR0	030	RESERVED	070	RESERVED	0B0	RESERVED	0F0
DBA04DR1	031	ACA00CR0	071	RESERVED	0B1	RESERVED	OF1
DBA04DR2	032	ACA00CR1	072	RESERVED	0B2	RESERVED	0F2
DBA04CR0	033	ACA00CR2	073	RESERVED	0B3	RESERVED	0F3
DBA05DR0	034	RESERVED	074	RESERVED	0B4	RESERVED	0F4
DBA05DR1	035	ACA01CR0	075	RESERVED	0B5	RESERVED	0Г5
DBA05DR2	036	ACA01CR1	076	RESERVED	0B6	RESERVED	0F6
DBA05CR0	037	ACA01CR2	077	RESERVED	0B7	RESERVED	OF7
DCA06DR0	038	RESERVED	078	RESERVED	0B8	RESERVED	0F8
DCA06DR1	039	ACA02CR0	079	RESERVED	0B9	RESERVED	0F9
DCA06DR2	03A	ACA02CR1	07A	RESERVED	OBA	RESERVED	ОГА
DCBA06CR0	03B	ACA02CR2	07B	RESERVED	0BB	RESERVED	0FB
DCA07DR0	03C	RESERVED	07C	RESERVED	OBC	RESERVED	OFC
DCA07DR1	03D	ACA03CR0	07D	RESERVED	OBD	RESERVED	OFD
DCA07DR2	03E	ACA03CR1	07E	RESERVED	OBE	RESERVED	OFE
DCA07CR0	03F	ACA03CR2	07F	RESERVED	OBF	CPU_SCR	OFF

# FIGURE 15A CONT.

### <u>150b</u>

REG NAME	ADDR						
PTRODMO	000	RESERVED	040	ASA10CR0	080	RESERVED	000
PRT0DM1	001	RESERVED	041	ASA10CR1	081	RESERVED	0C1
PRT0IC0	002	RESERVED	042	ASA10CR2	082	RESERVED	0C2
PRT0IC1	003	RESERVED	043	ASA10CR3	083	RESERVED	0C3
PTR1DM0	004	RESERVED	044	ASB11CR0	084	RESERVED	0C4
PRT1DM1	005	RESERVED	045	ASB11CR1	085	RESERVED	0C5
PRT1IC0	006	RESERVED	046	ASB11CR2	086	RESERVED	006
PRT1IC1	007	RESERVED	047	ASB11CR3	087	RESERVED	0C7
PRT2DM0	008	RESERVED	048	ASA12CRO	088	RESERVED	0C8
PRT2DM1	009	RESERVED	049	ASA12CR1	089	RESERVED	0C9
PRT2IC0	00A	RESERVED	04A	ASA12CR2	08A	RESERVED	OCA
PRT2IC1	00B	RESERVED	04B	ASA12CR3	08B	RESERVED	0CB
PRT3DM0	00C	RESERVED	04C	ASB13CR0	08C	RESERVED	OCC
PRT3DM1	00D	RESERVED	04D	ASB13CR1	08D	RESERVED	OCD
PRT3IC0	00E	RESERVED	04E	ASB13CR2	08E	RESERVED	OCE
PRT3IC1	00Г	RESERVED	04Г	ASB13CR3	08Г	RESERVED	OCF
PRT4DM0	010	RESERVED	050	ASB20CR0	090	RESERVED	0D0
PRT4DM1	011	RESERVED	051	ASB20CR1	091	RESERVED	0D1
PRT4IC0	012	RESERVED	052	ASB20CR2	092	RESERVED	OD2
PRT4IC1	013	RESERVED	053	ASB20CR3	093	RESERVED	0D3
PRT5DM0	014	RESERVED	054	ASA21CR0	094	RESERVED	0D4
PRT5DM1	015	RESERVED	055	ASA21CR1	095	RESERVED	0D5
PRT5IC0	016	RESERVED	056	ASA21CR2	096	RESERVED	0D6
PRT5IC1	017	RESERVED	057	ASA21CR3	097	RESERVED	0D7
RESERVED	018	RESERVED	058	ASB22CR0	098	RESERVED	0D8
RESERVED	019	RESERVED	059	ASB22CR1	099	RESERVED	0D9
RESERVED	01A	RESERVED	05A	ASB22CR2	09A	RESERVED	ODA
RESERVED	01B	RESERVED	05B	ASB22CR3	09B	RESERVED	0DB
RESERVED	01C	RESERVED	05C	ASA23CR0	09C	RESERVED	ODC
RESERVED	01D	RESERVED	05D	ASA23CR1	09D	RESERVED	ODD
RESERVED	01E	RESERVED	05E	ASA23CR2	09E	RESERVED	ODE
RESERVED	01F	RESERVED	05F	ASA23CR3	09Г	RESERVED	ODF

# FIGURE 15B

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### <u>150b</u>

REG NAME	ADDR	REG NAME	ADDR	REG NAME	ADDR	REG NAME	ADDR
DBA00FN	020	CLK_CR0	060	RESERVED	0A0	OSC_CRO	0E0
DBA00IN	021	CLK_CR1	061	RESERVED	0A1	OSC_CR1	0E1
DBA000U	022	ABF_CR	062	RESERVED	0A2	RESERVED	0E2
RESERVED	023	AMO_CR	063	RESERVED	0A3	VLT_CR	0E3
DBA01FN	024	RESERVED	064	RESERVED	0A4	RESERVED	0E4
DBA01IN	025	RESERVED	065	RESERVED	0A5	RESERVED	0E5
DBA010U	026	RESERVED	066	RESERVED	0A6	RESERVED	0E6
RESERVED	027	RESERVED	067	RESERVED	0A7	RESERVED	0E7
DCA02FN	028	RESERVED	068	RESERVED	0A8	IMO_TR	0E8
DCA02IN	029	RESERVED	069	RESERVED	0A9	ILO_TR	0E9
DCA020U	02A	RESERVED	06A	RESERVED	OAA	BDG_TR	0EA
RESERVED	02B	RESERVED	06B	RESERVED	OAB	ECO_TR	0EB
DCA03FN	02C	RESERVED	06C	RESERVED	OAC	RESERVED	OEC
DCA03IN	02D	RESERVED	06D	RESERVED	OAD	RESERVED	0ED
DCA030U	02E	RESERVED	06E	RESERVED	OAE	RESERVED	0EE
RESERVED	02F	RESERVED	06F	RESERVED	OAF	RESERVED	0EF
DBA04FN	030	RESERVED	070	RESERVED	0B0	RESERVED	0F0
DBA04IN	031	ACA00CR0	071	RESERVED	0B1	RESERVED	OF1
DBA040U	032	ACA00CR1	072	RESERVED	0B2	RESERVED	0F2
RESERVED	033	ACA00CR2	073	RESERVED	0B3	RESERVED	OF3
DBA05FN	034	RESERVED	074	RESERVED	0B4	RESERVED	0Г4
DBAOSIN	035	ACA01CR0	075	RESERVED	0B5	RESERVED	0F5
DBA050U	036	ACA01CR1	076	RESERVED	0B6	RESERVED	0Г6
RESERVED	037	ACA01CR2	077	RESERVED	0B7	RESERVED	0F7
DCA06FN	038	RESERVED	078	RESERVED	0B8	RESERVED	0F8
DCA06IN	039	ACA02CR0	079	RESERVED	0B9	RESERVED	0F9
DCA060U	03A	ACA02CR1	07A	RESERVED	0BA	RESERVED	ОГА
RESERVED	03B	ACA02CR2	07B	RESERVED	0BB	RESERVED	OFB
DCA07FN	03C	RESERVED	07 <b>C</b>	RESERVED	0BC	RESERVED	OFC
DCA07IN	03D	ACA03CR0	07D	RESERVED	OBD	RESERVED	0FD
DCA070U	03E	ACA03CR1	07E	RESERVED	OBE	RESERVED	OFE
RESERVED	03F	ACA03CR2	07F	RESERVED	OBF	CPU_SCR	OFF

## FIGURE 15B CONT.



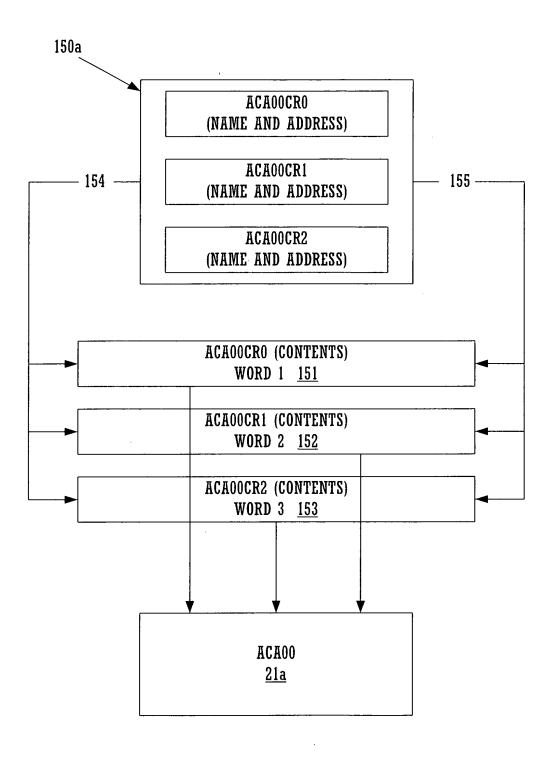


FIGURE 16

# TITLE: PROGRAMMING ARCHITECTURE FOR A PROGRAMMABLE ANALOG SYSTEM INVENTORS: Monte Mar and Warren Snyder USSN: 09/929,891 ATTORNEY DOCKET #: CYPR-CD00226

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151 → •	Word 1	(LSB)	F0	F1	<b>F</b> 3	G	N/C	N/C	N/C	N/C	(MSB)
152 •	Word 2	(LSB)	P0	<b>P</b> 1	<b>P2</b>	NO	N1	N2	CEN	08	(MSB)
153	Word 3	(LSB)	<b>S</b> 0	<b>S</b> 1	N/C	N/C	R0	R1	R2	R3	(MSB)

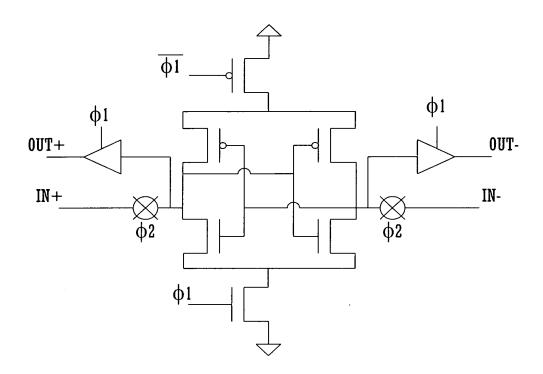
FIGURE 17

•	Word 0	(LSB)	A0	A1	A2	<b>A</b> 3	<b>A</b> 4	S	PS	OSZ	(MSB)		
•	Word 1	(LSB)	B0	B1	B2	<b>B</b> 3	<b>B4</b>	I11	I12	IS3	(MSB)		
•	Word 2	(LSB)	CO	C1	C2	C3	C4	AZ	CS	08	(MSB)		
•	Word 3	(LSB)	<b>S</b> 0	<b>S</b> 1	IS21	IS22	D01	D02	R1	R2	(MSB)		
	FIGURE 18A												

• Word 0 (LSB) OSZ (MSB) A0 A1 A2 **A**3 **A4** S PS (LSB) (MSB) **B**1 **I11** • Word 1 **B**0 **B2 B**3 **B4 I12 I13** (MSB) • Word 2 (LSB) CO C1 **C2**  $\mathbb{C}3$ C4 ΑZ CS 08 (MSB) **S**1 MB N/C D01 D02 • Word 3 (LSB) S0**R**1 **R2** 

### FIGURE 18B

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# FIGURE 19

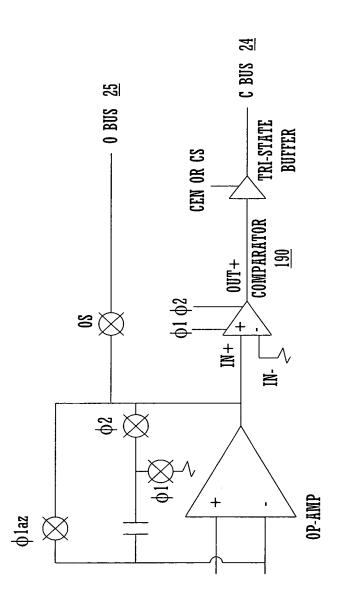
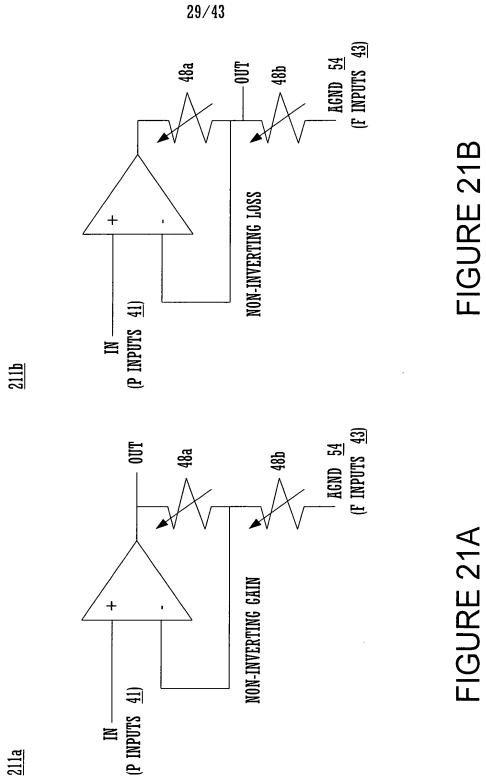
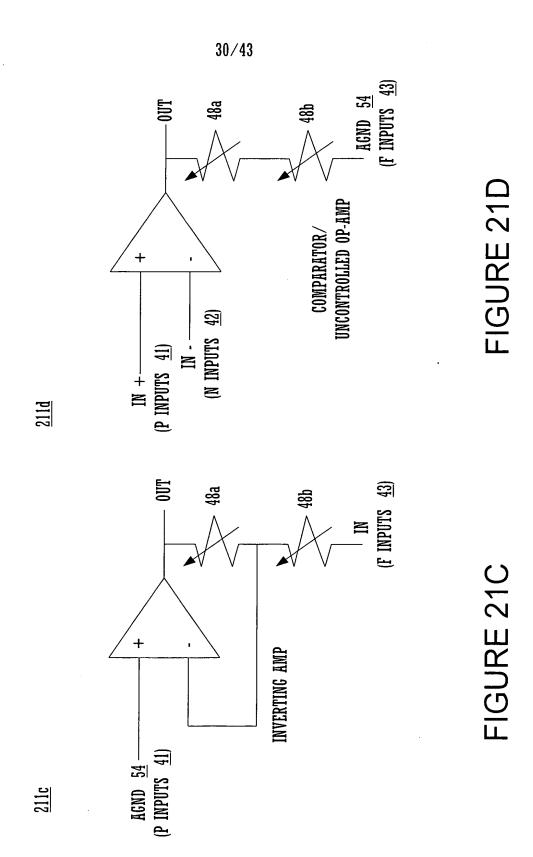
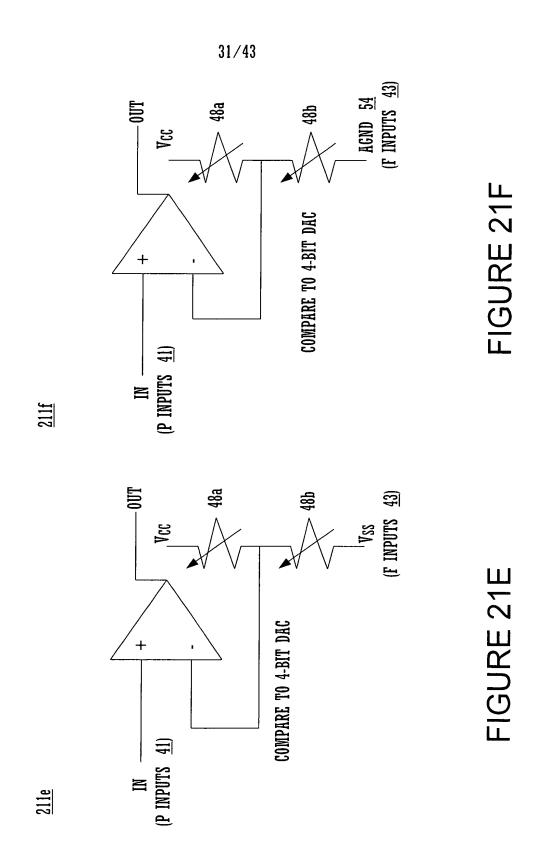
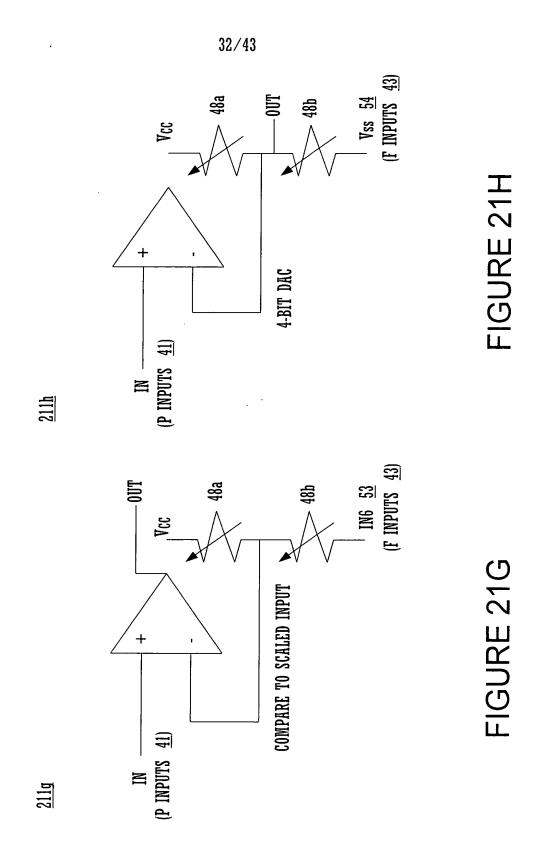


FIGURE 20

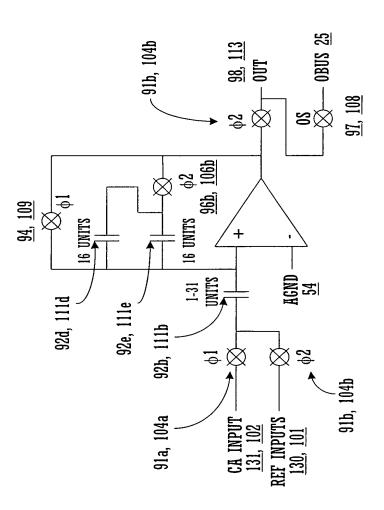








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**FIGURE 22A** 

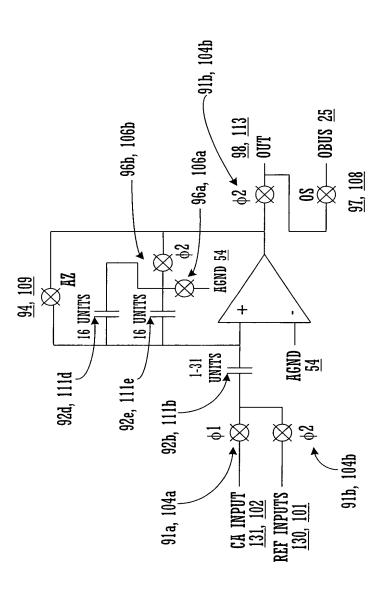


FIGURE 22B

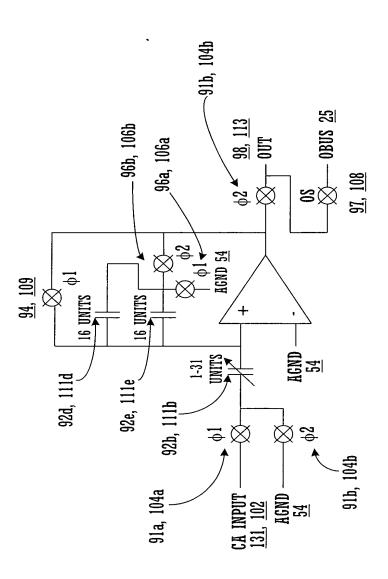


FIGURE 22C

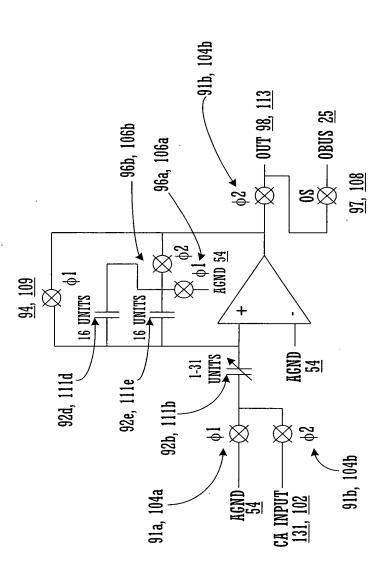


FIGURE 22D

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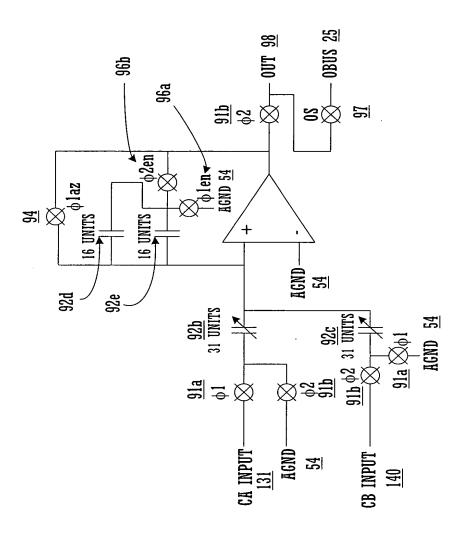


FIGURE 22E

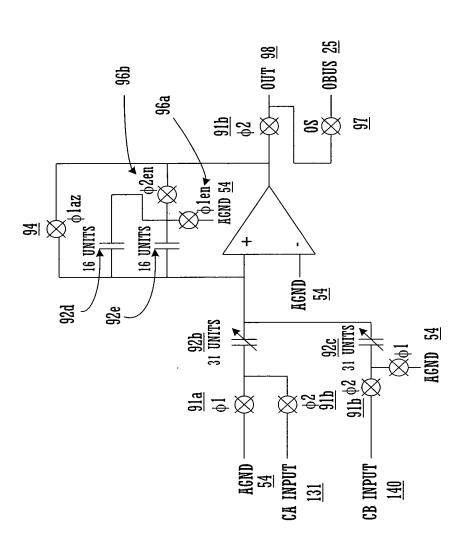


FIGURE 22F

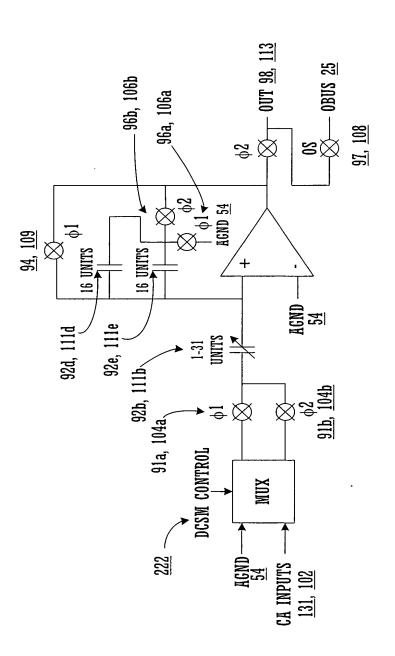
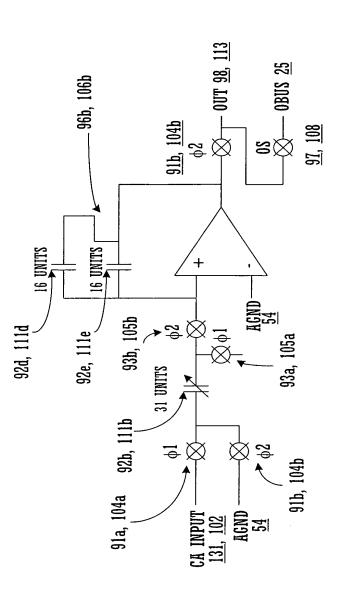


FIGURE 22G



**FIGURE 22H** 

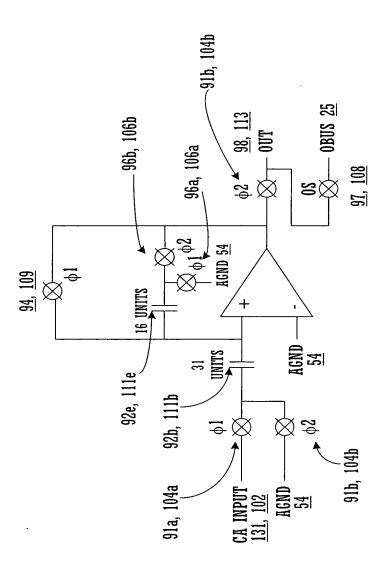
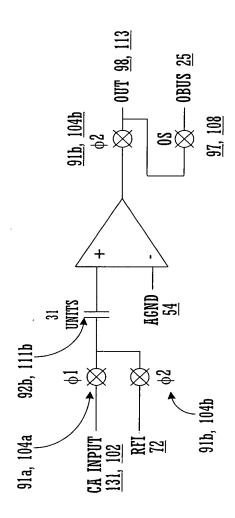


FIGURE 221



**-IGURE 22J** 

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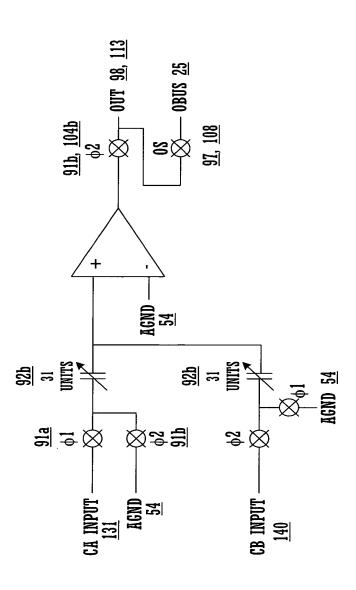


FIGURE 22K